

Amendment to the Claims:

This listing of claims will replace all previous versions and listings of claims in the application:

1-22. (Canceled)

23. (Currently amended) A method for identifying HER2-positive tumor cells as responsive to treatment with an antibody inhibiting the association of HER2 with another member of the ErbB receptor family comprising:

- (a) providing a biological sample comprising HER2-positive tumor cells;
- (b) determining the ~~level~~ presence of phosphorylation of an ErbB receptor in said biological sample; ~~and~~
- (c) identifying said HER2-positive tumor cells as responsive to treatment with said antibody if ~~a significant level~~ the presence of phosphorylation is determined; ~~and~~
- (d) subjecting the tumor cells identified as responsive in step (c) to treatment with said antibody.

24. (Currently amended) The method of claim 23 wherein the ~~level~~ presence of phosphorylation of an ErbB2 (HER2) receptor is determined.

25. (Previously presented) The method of claim 23 wherein the other member is selected from the group consisting of HER3, HER1 and HER4.

26. (Previously presented) The method of claim 23 wherein the antibody binds HER2.

27. (Currently amended) The method of claim 26 wherein the ~~anti-HER2~~ antibody blocks ligand activation of an ErbB heterodimer comprising HER2.

28. (Previously presented) The method of claim 27 wherein the antibody is rhuMAb 2C4.

29-39. (Canceled)

40. (Previously presented) The method of claim 23 wherein the biological sample is tissue obtained from a tumor biopsy.

41. (Previously presented) The method of claim 23 wherein the biological sample is a biological fluid comprising circulating tumor cells and/or circulating plasma proteins.

42. (Previously presented) The method of claim 23 wherein the tumor is selected from the group consisting of breast cancer, prostate cancer, lung cancer, colorectal cancer and ovarian cancer.

43. (Currently amended) The method of claim 23 wherein the ~~level~~ presence of ErbB receptor phosphorylation is determined by immunoprecipitation of the ErbB receptor and Western blot analysis.

44. (Currently amended) The method of claim 43 wherein the ~~level~~ presence of ErbB receptor phosphorylation is indicated by the presence of a phospho-ErbB receptor band on the gel.

45. (Previously presented) The method of claim 43 further comprising the step of confirming ErbB receptor phosphorylation by immunohistochemistry using a phospho-specific anti-ErbB receptor antibody.

46. (Currently amended) The method of claim 23 wherein the ~~level~~ presence of ErbB receptor phosphorylation is determined by immunohistochemistry.

47. (Currently amended) A method for predicting the response of a subject diagnosed with a HER2-positive tumor to treatment with an antibody inhibiting the association of HER2 with another member of the ErbB receptor family comprising:

- (a) providing a biological sample obtained from said subject, comprising HER2-positive tumor cells;
- (b) determining the ~~level~~ presence of phosphorylation of an ErbB receptor in said biological sample; ~~and~~
- (c) predicting that said subject is likely to respond to treatment with said antibody, if a significant level of phosphorylation is determined; and
- (d) administering said antibody to the subject predicted in step (c) as likely to respond to said treatment.

48. (Previously presented) The method of claim 47 wherein said ErbB receptor is ErbB2 (HER2).

49. (Previously presented) The method of claim 47 wherein the other member is selected from the group consisting of HER3, HER1 and HER4.

50. (Previously presented) The method of claim 47 wherein the antibody binds HER2.

51. (Previously presented) The method of claim 50 wherein the anti-HER2 antibody blocks ligand activation of an ErbB heterodimer comprising HER2.

52. (Previously presented) The method of claim 51 wherein the antibody is rhuMAb 2C4.

53-63. (Canceled)

64. (Previously presented) The method of claim 47 wherein the biological sample is tissue obtained from a tumor biopsy.

65. (Previously presented) The method of claim 47 wherein the biological sample is a biological fluid comprising circulating tumor cells and/or circulating plasma proteins.

66. (Previously presented) The method of claim 47 wherein the tumor is selected from the group consisting of breast cancer, prostate cancer, lung cancer, colorectal cancer and ovarian cancer.

67. (Currently amended) The method of claim 47 wherein the ~~level~~ presence of ErbB receptor phosphorylation is determined by immunoprecipitation of the ErbB receptor and Western blot analysis.

68. (Currently amended) The method of claim 67 wherein the ~~level~~ presence of ErbB receptor phosphorylation is indicated by the presence of a phospho-ErbB receptor band on the gel.

69. (Previously presented) The method of claim 67 further comprising the step of confirming ErbB receptor phosphorylation by immunohistochemistry using a phospho-specific anti-ErbB receptor antibody.

70. (Currently amended) The method of claim 47 wherein the ~~level~~ presence of ErbB receptor phosphorylation is determined by immunohistochemistry.

71. (Currently amended) A method for identifying a subject responsive to treatment with an anti-HER2 antibody inhibiting the association of HER2 with another member of the ErbB receptor family comprising

a) determining the ~~level~~ presence of phosphorylation of an ErbB receptor in circulating tumor cells of said subject, ~~and~~

b) determining that said subject is likely to respond to treatment with ~~an~~ said anti-HER2 antibody if ~~a significant level~~ the presence of said phosphorylation is determined, ~~and~~

c) following determination in step b) that said subject is likely to respond to treatment,
treating said subject with said anti-HER2 antibody.

72. (Previously presented) The method of claim 71 wherein ErbB2 (HER2) phosphorylation is determined.

73. (Previously presented) The method of claim 72 wherein said subject is a human.

74-88. (Canceled)